CXIII. *A Letter to* George Lewis Scot, *Eſquire, concerning the preſent Increaſe of the People in* Britain *and* Ireland: *From* William Brakenridge, *D. D. Rector of* St. Michael Baſſiſhaw, London, *and F. R. S.*

Dear Sir,

Read Dec. 9. 1756. YOUR favourable acceptance of my two former letters, concerning the number of people in this city, and throughout England, has encouraged me to add this as a ſupplement to them; in which if the obſervations are not ſo agreeable as could be wiſhed, they may perhaps be uſeful in our reaſoning upon matters of Government, and help us to diſcover ſome things that may be wrong, or inconſiſtent with the public utility.

From the proportion of births and burials in England, and the number of people found, you have already ſeen what the annual increaſe might be; which appeared ſo ſmall, that I was in ſome doubt whether there was any increaſe at all, after the deduction of our loſſes by our ordinary commerce at Sea, our wars, and emigrations to our Colonies. However, ſuppoſing, that there was an annual increaſe, I ſhewed the method of computing it, after any number of years; which ſometimes may be of uſe in conſide ing the increaſe of mankind in general. But now, having conſidered this ſubject farther, I think it may be proved, that there is no increaſe at

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all from both our Britiſh Iſles, after the deduction of our loſſes; and that in England, taken by itſelf, the natives would be in a decreaſing ſtate, if it were not for the ſupplies from Scotland and Ireland. As this ſeems to be of ſome importance to diſcover, becauſe of its conſequence with regard to Policy, and the influence it may ſometimes have, I ſhall endeavour to ſhew it as plainly, as the preſent circumſtances of things will allow.

Dr. Halley has ſhewn, from his Table of the Probabilities of life at Breſlau, that the number of men able to carry arms in any country, between 18 and 56 years of age, or, as they are called, the fencible men, may be eſtimated as a fourth part of the whole people, children included. From which it demonſtrably follows, that the fourth part of the annual increaſe will likewiſe be the increaſe of the fencible men; and that their increaſe or decreaſe will always be in that proportion. And therefore, if in England the annual increaſe of the people does not exceed 18000, as I have before proved from the proportion of births and burials, and the whole number being ſix millions, the annual increaſe of the fencible men will not be above 4500.

But in Scotland and Ireland this increaſe may be reaſonably ſuppoſed to be more, in proportion as there are more marriages than in England. And therefore, to avoid any uncertainty in calculation, we will ſuppoſe the annual increaſe in thoſe countries, to be double in proportion. That is, as we have from obſervation, aſſumed the births to be to the burials as 112 to 100 at an average through England, we will now allow them in Scotland and Ireland

Ireland to be as 124 to 100; where the difference, which is the increaſe, is double to the other, and by which the whole people would be doubled in about 114 years; which is ſurely as much as can be ſuppoſed. And then, by the method that has been ſhewn in my laſt letter, if the people in both countries do not exceed 2,500,000, the annual increaſe will be found to be 15,000, and the fencible men will be 3750.

From the account given in the Philoſophical Tranſactions, N°. 261, the number of people in Ireland, in the year 1696, did not appear to be more than 1,034,000; ſince which time there has been little increaſe, as I ſhall preſently ſhew; and in Scotland they are ſuppoſed to be leſs than 1,500,000; and ſo both together they cannot be reckoned at more than 2,500,000: and therefore the annual increaſe of the fencible men cannot poſſibly be more than 3750, in both countries; which with thoſe in England will be 8250, for the annual increaſe in Britain and Ireland, or a little above 8000 men. And no reaſonable computation can make them more.

It is true it may be ſaid, that beſides this increaſe, there is a conſiderable number of Foreigners, who come from all parts of Europe to ſettle among us, eſpecially at London; but it may be juſtly ſuppoſed, that they are nearly ballanced by the number that go from hence, to reſide in other kingdoms, for the purpoſes of trade and other conſiderations. And there cannot be ſo great an acceſſion of Foreigners, as is commonly imagined; for they almoſt all come to this City, and yet it is not in an increaſing ſtate, as has been ſhewn in my firſt letter, notwithſtanding

all its ſupplies from them, and from Scotland and Ireland.

The number then 8250 may be conſidered, at the utmoſt, as the yearly increaſe of the fencible men; from which all our public loſſes in our ordinary commerce at Sea, and in our wars by Land and Sea, and by our Colonies, are to be deducted. And it is plain, if in all theſe ways our loſſes are annually equal to about 8000 men, there can be no increaſe at all of our fencible men; and conſequently no increaſe of our people, which muſt always be in proportion to them; but if our loſſes are more, we muſt be in a decreaſing ſtate.

To make a juſt and moderate eſtimate of our loſſes it will be proper, that we take fifty or ſixty years at an average to avoid any uncertainty. And if we begin at the year 1690, which is 66 years ago, we ſhall find, that during that time, in our commerce at Sea, and in our wars by Land and Sea, we cannot have loſt leſs than 450,000 men.

To ſhew this it may be obſerved, that in all bodies or armies of fencible men, which conſiſt generally of thoſe between 18 and 56 years of age, there dies annually about one in 54, by the natural decreaſe of life, as appears from Dr. Halley's Table. And therefore, if there are 80000 ſeamen or more, as is ſaid in Britain and Ireland, the natural decreaſe, which is not here to be conſidered, will be about 1480 or 1500 annually. But the number muſt be much greater that is loſt, by the various contingencies of the Sea, by wreck, ſcurvy, and the inclemency of different climates, &c.; for fewer cannot be ſuppoſed to be deſtroyed by ſuch incidents, than the double

double of thoſe that may be by natural mortality. I think there muſt be more; for if a ſhip goes a voyage for a year with an hundred men on board, and returns only with the loſs of half a dozen, ſhe is reckoned to have made a healthy voyage, though the loſs is above three times what might be expected from natural decreaſe; that is, though the loſs by the Sea only may be conſidered as double the other. And it often happens, that by ſickneſs there will be much more than this, beſides all the other hazards of the Sea. Our ſhips of war in long cruiſing have generally a greater conſumption of their people: So that our loſſes by Sea are rather undervalued, when they are eſtimated to be the double, of what is from the natural decrements of life. And, if this be allowed, the loſs by the various contingencies of the Sea will be more than 3000 annually, over and above the number that might die by natural caſualties if they were at home; and in 66 years it muſt be 198,000.

And as to our loſſes by war at Land and Sea, of our own people, they are commonly reckoned to be 300,000, in all the three French wars, ſince 1690: But if we abate 50,000 from that number, that we may reaſon with more certainty, they cannot poſſibly be leſs than 250,000; for in all thoſe wars, that taken together were about twenty years, there muſt be more than 10,000 loſt yearly by Land and Sea. And therefore, both by our commerce and wars, from that time mentioned, we have at leaſt loſt about 448,000, or 6800 annually. In which are included thoſe who died by fatigue, and other hardſhips, as well as thoſe in actual Engagements.

And

And if we add to this, the number that is conſtantly and ſecretly drawn from Ireland, for foreign military ſervice and on the account of religion; and likewiſe thoſe taken from Scotland, for our Regiments in the Dutch ſervice; all which cannot be leſs than 500 yearly, though ſome have thought it to be double this, we ſhall then appear to have loſt 7300 annually, ſince the year 1690. To which if we put the loſs of thoſe who go from hence to our Colonies, and other ſettlements, particularly to Jamaica and the Eaſt-Indies; and, laſt of all, the number we have loſt by the uſe of ſpirituous liquors; it will be plain, that our whole loſs cannot be leſs but more than 8250 annually; which is at moſt the yearly increaſe of our fencible men: And therefore that there has been no increaſe at all of our people theſe laſt 66 years; but rather perhaps a decreaſe, though it cannot be aſcertained with any preciſion. And there is no avoiding this concluſion, unleſs it can be ſhewn, that the annual increment of our fencible men is much greater than 8250; which ſeems impoſſible, without proving the number of our people to be more than ſix millions, and the proportion of births to burials greater than any obſervations through England have lately made them.

And here it is to be obſerved, that if there has been no increaſe during that period of years, the people of England cannot be more than 5,500,000. Becauſe, when they are computed from the number of houſes at the year 1710, they do not exceed 5,467,000; and when in my laſt letter, I ſuppoſed there might be ſome increaſe, and gave a calculation of it to the preſent time, that, being added to the above,

above, made only about ſix millions. And therefore the annual increaſe of fencible men in England is not above 4130, and in both Iſlands it does not exceed 7900; which being leſs than what we have allowed above, ſeems to corroborate what has been ſaid.

Now if this can be proved, as I imagine it has, that there is no increaſe of our people in Britain and Ireland, becauſe of our loſſes, we may make this unpleaſant reflection, that our country can never be fully peopled, while our loſſes continue ſo great as they have been theſe laſt ſixty years. For it has been ſhewn in my laſt letter, that we want one third more people, to be fully inhabited, and which we could conveniently maintain from our own natural produce, if our land was duly cultivated. And it may be farther obſerved, that as the greateſt part of thoſe loſſes above-mentioned belong to England, becauſe of its much greater trade, and the greater number of its people, it may be conſidered as in a decreaſing ſtate with regard to its natives; and, if it were not ſupplied from Scotland and Ireland, the decreaſe would be plainly diſcovered. For, as the people in England are double to thoſe in both the two other countries, its loſſes muſt be in that proportion at leaſt, or about 5300 annually, two-thirds of the whole; which is more than the increaſe of its fencible men.

In London and Weſtminſter the decreaſe has been obſervable from the Bills of Mortality within theſe laſt twelve years, as I have ſhewn in my firſt letter; but the greateſt part of that may, I believe, be attributed to other cauſes, rather than national loſſes.

From

From the above calculation we may likewiſe ſee, how ſmall the annual increaſe of fencible men may be in Britain, or perhaps in any other country in Europe. For as that increaſe in both our Iſlands does not appear to be more than 8250 but rather leſs, or about 7900, and the number of our whole people in them is not found to exceed 8,000,000, the annual increaſe in each million muſt be leſs than 1000, or about 987; that is, leſs than one in a thouſand; though we have allowed the increaſe in Scotland and Ireland to be double in proportion to what it is in England. And from this we may form a good rule, by which we may judge of the increaſe, or decreaſe of other nations. For though they may be ſuppoſed to increaſe perhaps faſter than we do, by more frequent marriages, the annual increaſe of their fencible men will not generally much exceed 1000, for every million of people. And therefore, according as their loſſes by war, or other devaſtations are fewer, or exceed 1000 fencible men annually, for every million of their people, they are either in an increaſing or decreaſing ſtate; and for every 1000 men that are loſt, there is the increaſe of a million for one year deſtroyed; which it were to be wiſhed, that Princes would attend to, in their ambitious ſchemes, by which they make ſuch havock of mankind.

And hence by the way we may obſerve, that France cannot be in an increaſing ſtate, unleſs their late encouragement for marriage has had ſome conſiderable effect; becauſe if the number of her people, as Sir William Petty and others have reckoned, does not exceed 14,000,000, the annual increaſe of her fencible

fencible men will not be much more than 14,000: Which number ſeems to be exhauſted during theſe laſt 66 years, in her frequent wars, her ordinary commerce at Sea, and emigrations to her Colonies. For all the annual increments put together, in that time, will not make above a million, and the loſſes cannot be computed at much leſs. And this is ſome comfort to us in Britain, that our neighbours, who are rivals to us in trade and power, are not better œconomiſts of their people than we are; and that their ſcheme of Government and ſuperſtition will never ſuffer them to increaſe, ſo much as they might reaſonably do.

We may in general likewiſe obſerve, that in all Europe the annual increaſe of people muſt be much leſs than it was in ſome former ages. For the advancement of trade in the maritime countries, muſt greatly augment the loſs of their fencible men. In Britain there is one-third of the increaſe of them deſtroyed by our concerns at Sea, and in Holland perhaps the whole of it; and this added to the ſuperſtitious celibacy of other nations, muſt diminiſh much the increaſe of people.

The above method of ſhewing our want of increaſe, from the loſſes of our fencible men; which are always in proportion to the whole body of the people, ſeems to me to be clear and demonſtrative: But the ſame thing may likewiſe be conjectured, from the exportation of our corn. For there is as much now ſent abroad as was forty years ago, or perhaps more; beſides a great deal of it diſtilled, which was not formerly done. And if there is the ſame quantity exported, there muſt be nearly the ſame con-

ſumption at home, and conſequently about the ſame number of people, unleſs there is a much greater quantity of land improved. But it ſeems evident, that if we were in an increaſing ſtate, our late improvements of land could not cauſe ſuch a ſurplus, over our home-conſumption. For there is near about a fifth part, of our whole crop of wheat exported annually. A quantity that ſhews we want people to conſume our natural produce, and that our country is but thinly peopled.

Now, to account for the cauſe of the want of increaſe in our Britiſh Iſles, it ſeems to be chiefly owing to three things, that operate together. The faſhionable humour that greatly prevails, by which above one-third of our people in England above twenty-one years of age are ſingle, occaſioned by a variety of circumſtances; and to our wars and commerce at Sea, which are rather beyond our natural ſtrength, by deſtroying more of our people than can well be ſpared, and which, if preſerved, might improve our country, and augment our power; and laſtly, to the uſe of ſpirituous liquors, by which numbers have been and are daily loſt. But there may be eaſy remedies for two of thoſe evils, by a little attention of the Legiſlature; which would greatly conduce to the public happineſs.

And thus, Sir, I have wrote this third Letter to you, upon a very uncommon ſubject: but I hope the importance of it will plead my excuſe. And if I have diſcovered any thing that has not been known, and that may be uſeful in our ſpeculations upon Government, I ſhall think my time and pains have

not been miſapplied; but if I have been miſtaken, your uſual goodneſs will, I truſt, forgive

Your moſt affectionate

Sion College, Nov. 25, 1756.

and faithful ſervant,

Wm. Brakenridge.

P. S. Since the above was written, I have been certainly informed, that from the ſurvey lately made of the window lights, after the year 1750, there are about 690,000 houſes charged to that Tax in England and Wales, beſides cottages that pay nothing. And though the number of cottages is not accurately known, it appears from the accounts given in, that they cannot amount to above 200,000. And therefore there are not in England and Wales more than 890,000 houſes, or 5,340,000 people, allowing ſix to a houſe; which well agrees with what I have ſaid in this and my former letter, and corroborates the whole of my reaſoning. For if the ſurvey made before the year 1710 was near the truth, from which it appeared, that there was not above 729,048 houſes, beſides cottages, or 929,048 houſes in the whole; which will make about 5,570,000 people; then there muſt have been no increment ſince that time, but rather a decreaſe, notwithſtanding the continual ſupplies from Scotland and Ireland, and from Foreigners.

I beg leave likewiſe to mention, that I find ſome people have objected to the Bills of Mor-

tality, from which I computed our numbers in London and Weſtminſter, in my firſt Letter; That they are too uncertain to found any calculations upon; that ſometimes in the weekly Bills there are omiſſions of ſome of the largeſt Pariſhes, and perhaps in the yearly Bills. To which it is anſwered. If there are omiſſions ſometimes in the weekly Bills, theſe are afterwards ſupplied in the ſubſequent weeks, and at the end of the year the whole account to each pariſh is made up, as accurately as the circumſtances will allow; ſo that upon the whole it is preſumed, the yearly Bills are done in ſuch manner, that they may be depended upon; for otherwiſe they would be a vile impoſition upon the Publick. And if they are properly taken care of, they may be conſidered as the index of the health and numbers of the people, as they are in other cities in Europe; in which view they have always had ſome credit, for a century paſt, and been attended to as of ſome importance; and many ingenious men have deduced uſeful ſpeculations from them. But if it ſhould be allowed, that there are inaccuracies in them, it cannot reaſonably be ſuppoſed, that there are more now than ever have been; for there is as much care taken of them lately as ever.

The argument then from which I inferred, that there is a decreaſe of the inhabitants within the Bills is this; That, before the year 1743, for twenty years, the burials in them were at an average above 27,000, and the baptiſms between 15,000 and 17,000; but ſince that time they are both gradually decreaſed; ſo that now the

burials

burials are about 22,000, and the baptiſms between 14,000 and 15,000, taken at an average for ten years: And therefore theſe different numbers, continued ſo long, cannot come from the ſame number of people; but that as the burials and baptiſms are both decreaſed, the whole people muſt be alſo diminiſhed. This ſeems be fair reaſoning, if the Bills are true. The times were as healthy before the year 1743, as ever ſince; there were as many burials carried out into the country before that time as afterwards; and there were as many D'ſſenters to leſſen the number of burials and baptiſms before that time as ever after. What then is to be concluded, the circumſtances being the ſame, but that there muſt be a diminution of the people? And this may be imperceptibly made; either by the increaſe of celibacy, or by fewer coming annually to reſide in Town than formerly, and more retiring from it; which laſt caſe I conſider rather as an advantage to the kingdom, as it may tend to the improvement of the country.

It is true, we do not ſee ſo great an increaſe of empty houſes, that may anſwer to the decreaſe in the Bills; but it may be eaſily imagined, that ſome hundreds of families may be diminiſhed, and not one houſe left empty. The one half of our people conſiſt of Lodgers, Inmates, and Children; and therefore there may be a great decreaſe of theſe, and yet not many more houſes empty: Though it is alſo to be conſidered, that there are much fewer houſes now within the Liberties of the city, than were before 1743; many being built in place of two or three, or more, and ware-

houſes

houſes made of others. I know ſome Pariſhes, in which they have loſt one tenth of their number, by this means, ſince that time; ſo that within the walls I find there is above double the number loſt, that I mentioned in my Letter. To live in large houſes is now a part of our luxury. But if there be an increaſe of houſes in Padington, Mary le bone, &c. without the Bills of Mortality, this does not affect my argument; which was only to ſhew, that there was a decreaſe of the people within them; and ſurely ſuch a ſmall increment is not to be compared to the probable decreaſe on the whole.

In that firſt Letter I reaſoned, and made my calculation, upon the ſame principles with Sir William Petty, Mr. Graunt, and other approved Authors. From a continued increaſe in the Bills they inferred, that there muſt be a proportional increaſe of inhabitants; and I from the continued decreaſe in them, in the ſame circumſtances, have endeavoured to prove a ſimilar decreaſe of people. If their reaſoning is juſt, mine cannot be falſe; and if the Bills never again appear ſo high, as formerly for a continuance, in healthy times, it will be a demonſtration.